ARTICULATION AGREEMENT
BETWEEN
THE UNIVERSITY OF THE DISTRICT OF COLUMBIA
SCHOOL OF ENGINEERING AND APPLIED SCIENCES
AND
NORTHERN VIRGINIA COMMUNITY COLLEGE

PURPOSE

The School of Engineering and Applied Sciences of the University of the District of Columbia offers baccalaureate degrees in the following disciplines: Civil Engineering, Computer Science, Electrical Engineering, Information Technology, and Mechanical Engineering.

The purpose of this articulation agreement is to provide a framework for students at Northern Virginia Community College (NOVA) who successfully complete the Associate of Science Degree requirements in the field of Engineering or a related field and who meet the requirements for admission into the University of the District of Columbia (UDC), to matriculate into a bachelor's degree program within the UDC School of Engineering and Applied Sciences (SEAS). This Articulation Agreements specifies credit-transfer policies, provides for enhanced advising aimed toward the baccalaureate, and defines course equivalencies.

ELEMENTS OF THE AGREEMENT

A. General Admission Requirements for the School of Engineering and Applied Sciences

The University of the District of Columbia agrees to **guarantee** Fall term admission to UDC and to a baccalaureate degree program in SEAS for a NOVA student who fulfills all of the requirements described below:

1. Completes an Associate of Science (A.S.) degree in Engineering (or a related field) at NOVA preceding matriculation to the University and has a NOVA cumulative grade point average (GPA) of at least **2.5** by the time of matriculation into UDC.

2. Meets the same prerequisites, GPA and other admissions criteria required for all transfer students applying to those programs.

3. Has earned a minimum of 54 transferable credit hours, 45 or more of which are from NOVA. This minimum may include dual enrollment credit, AP, IB, and credits from another accredited institution.

4. Submits a completed admissions application for transfer admission, including the application fee and all supplemental materials, by the semester application deadline.

5. NOVA transfer students who meet all of the above requirements but apply for admission to UDC for the spring semester will be considered on a case-by-case basis.
6.

B. Acceptance and Application of Credits

1. Students completing an A.S. at NOVA before July 2012 and fulfilling all NOVA general education requirements will be considered to have met all lower division general education requirements at UDC in effect prior to August 2010. Students who have not fulfilled degree-specific lower division UDC requirements will be required to do so. The general education courses taken by students who entered an A.S. program at NOVA in or after Fall 2010 or who complete after July 2012 will be transferable to the extent defined in the transfer policy for UDC's new general-education requirements. The new general-education transfer protocol is **Attachment A** to this agreement.

2. UDC will maintain the electronic transfer guide allowing the students the opportunity to view course transfer equivalencies. NOVA will include the link to the electronic transfer guide on their transfer website. Initial transfer guides are included as Attachments B of this Agreement. This information will be maintained with the most current NOVA information compared to the current UDC course offerings and degree requirements.

3. For NOVA courses to be eligible for transfer credit, course work must be graded "C" or better for . Grades for transferred courses do not enter into the computation of GPA at UDC. If the student repeats a course at UDC, the University will include repeated course grades in the UDC grade point average calculation

4. Students transferring from NOVA will be required to complete all the credits required in the degree program of their selection. However, they are also required to take a minimum of 30 semester hours of upper division courses and their last 30 undergraduate credit hours at UDC to be eligible to receive a UDC bachelor's degree.

5. As defined in the transfer guides, specified 100/200 level NOVA courses may be used to fulfill certain upper-division requirements of a degree at UDC. However, no NOVA courses may be applied toward the requirement for 30 upper-level course credits.

6. Transfer credit will not be granted for NOVA courses numbered below 100.

7. If a student completes an A.S. degree at NOVA and transfers to UDC, UDC will honor the transfer guides in effect for the two years prior to the student's completion of the NOVA degree. Because of this provision, UDC advisers are required to keep outdated transfer guides for a minimum of two years after a new transfer guide becomes effective.

REVIEW AND UPDATES

UDC and NOVA agree to review this Articulation Agreement annually, including reconfirming relevant transfer course equivalencies. Each institution will designate an individual to serve as liaison for the purpose of monitoring this agreement. Each institution agrees to provide updated curriculum changes promptly to the other party immediately upon their availability. All updated curriculum changes will be made available in print form or on the websites of UDC and NOVA.

AMENDMENTS, MODIFICATIONS, AND TERM OF EFFECT

1. This agreement may be amended, as needed, for specific program articulation and all course-by-course-transfer guides may be amended as needed. Amendments of the agreement require written concurrence at the same level as the original version. Updates of the course-transfer guides require the concurrence of the cognizant deans of each institution.

2. This articulation agreement may be terminated by either party upon written notice to other party of an intention to terminate. The effective date of the termination cannot be prior to 180 days after the notice is tendered. In the event that this agreement is terminated, the transfer guides and admission terms will remain in effect for one (1) year after the date of termination.

Dr. Beverly K. Hartline Date 9/26/2011
Acting Dean,
School of Engineering and Applied Sciences
University of the District of Columbia

Dr. ~~John T. Dever~~ Anthony Tarad Date 10/24/2011
Executive Vice President,
Academic and Student Services
Northern Virginia Community College

Graeme Baxter, J. D. Date 9/26/2011
Provost & Vice President of Academic Affairs
University of the District of Columbia

Dr. Robert G. Templin, Jr. Date 10/25/11
President
Northern Virginia Community College

Attachment A

General Education Transfer Protocol

To ensure that students transferring credits to UDC proceed towards graduation in a fair but educationally sound manner, the committee made the decision to categorize students according to the total number of credits transferred. This decision will affect all newly admitted students (freshman, transfer or readmit) for fall 2010.

Category 1

- **Transferring 0 to 24 credits**, students will take the new general education scheme. Any student in this category who has transferred composition 1 **and** 2 as part of the transferred credits will be exempt from the semester 1writing course and must take the semester 2 writing course. Also, any student who has transferred college math 1 will be exempt from foundation quantitative reasoning in semester 1. Students transferring only Composition 1 will take the semester 1 writing course.

Category 2

- **Transferring 25 to 75 credit hours**, students' transcripts will be analyzed. If general education requirements are met under the existing scheme the student will be exempt from the new scheme.

Category 3

- **Transferring 76 credit hours and above**, students will proceed to graduation under the existing general education requirements.

ATTACHMENTS B

Attachment B-CE

B-CE

TRANSFER ADVISING SHEET

School of Engineering & Applied Sciences

Civil Engineering BS

NOVA Associate of Science Degree **ANNANDALE Campus**

Engineering Catalog Year 2010-11 NOVA Code: 8310

Purpose: The curriculum is designed to permit the student to transfer into a baccalaureate degree program in Civil Engineering. **The Civil Engineering program at UDC is accredited by the Engineering Accreditation Commission of ABET, Inc**.

	NOVA Courses	Credits	UDC Requirements		Credits
CHM 111	College Chemistry I	4	1507-111/113	General Chemistry I Lec/Lab	4
[1]CST	Elective	3	N/A		
[2]EGR	Elective (Chose MTH 291 & MTH 292)	2-3	1535-254	Differential Equation	3
EGR 120	Introduction to Engineering	2	3528-231	Introduction to Engineering	1
EGR 126	Computer Programming for Engineers	3	3529-135	Scientific Programming	3
EGR 240	Solid Mechanics (Statics)	3	3509-201	Engineering Mechanics I	3
EGR 245	Engineering Mechanics - Dynamics	3	3509-202	Engineering Mechanics II	3
[3]EGR 246	Mechanics of Materials	3	3509-206	Mechanics of Materials (Lec)	3
ENG 111	College Composition I	3	1133-111	English Composition I	3
[4]ENG 112	College Composition II	3	1133-112	English Composition II	3
[5]___	Fine Arts Elective	3	Fine Art elective [a]		3
[5]___	Humanities	3	1133-211	Literature and Advanced Writing I	3
MTH 173	Calculus with Analytic Geometry I	5	1535-151/155	Calculus I (Lec/Lab)	4
MTH 174	Calculus with Analytic Geometry II	5	1535-253/255	Calculus II (Lec/Lab)	4
MTH 277	Vector Calculus	4	N/A		
[6]PED 116	Lifetime Fitness & Wellness	1	N/A		
[6]PED/RPK	Elective	1	N/A		
PHY 231	General University Physics I	5	1539-201/205	University Physics I (Lec/Lab)	4
PHY 232	General University Physics II	5	1539-202/206	University Physics II (Lec/Lab)	4
[7]___	Social Science Elective	3	Suggested Social Science Electives [b]		3
[7]___	Social Science Elective	3	Suggested Social Science Electives [b]		3
[8]SDV	Elective	1	N/A		
TOTAL NOVA credits		**68-69**	**Total equivalent UDC credits**		**54**

[a] Art**:** Art History, Art Appreciation, Music Appreciation, History of Afro American Music, Jazz History.

[b] Social Science Electives: Economics, History, Geography, Political Science, Psychology, Social Welfare, Sociology, Anthropology, Urban Studies.
[1] The CST elective may be selected from the following: CST 100, 110, 115, 126, 227 and CST 229.
[2] CSC 201 should be substituted for EGR 126 for transfer to University of the District of Columbia.
[3] EGR 265 may be substituted for EGR 240.
[4] ENG 125 may be substituted with the advice of a counselor or faculty advisor according to requirements of transfer institutions.
[5] The humanities/fine arts elective may be selected from the humanities/fine arts courses listed under General Education Electives. Elective should be selected with advice of a counselor or faculty advisor to meet requirements of transfer institution.
[6] The PED requirement may be met by one of the following options: PED 116, 2 cr.; PED 116, 1 cr. plus a PED activities course, 1 cr.; or PED 116, 1 cr. plus any RPK activities course. PED 116 is offered as both a 1-credit and a 2-credit course.
[7] The social science elective may be selected from the social /behavioral sciences listed under General Education Electives.
[8] Students can take SDV 100 College Success Skills or the SDV 101 Orientation section related to their particular program.

Additional UDC Courses for BS Civil Engineering					
1167-105	Introduction to Logic	3	3509-331	Geotechnical Engineering Lec	3
1133-212	Literature and Adv. Writing II	3	3509-332	Geotechnical Engineering Lab	1
3511-208	Thermodynamics	3	3509-332	Foundation Design	3
3511-105	Computer Aided Graphics	3	3515-476	Construction Planning & Scheduling	3
	Basic Science Elective Lec & Lab	4	3515-476	Construction Project Management	3
3509-207	Mechanics of Materials Lab	1	3509-406	Engineering Economics	3
1535-381	Probability & Statistics	3	3509-xxx	CE Technical Elective I	3
3509-308	Numerical Analysis For Engineers	3	3509-xxx	CE Technical Elective II	3
3509-311	Theory of Structures Lec & Lab	4	3509-xxx	CE Technical Elective III	3
3509-312	Design of Structures	3	3509-491	Sr. Project in Civil Engineering I	3
3509-352/354	CE Materials Lec & Lab	4	3509-492	Sr. Project in Civil Engineering II	3
3509-325/327	Hydraulics & Hydrology Lec Lab	4	3509-464	Eng. Ethics & Professional Practice	1
3509-442	Water Resources Engineering	3	3509-481	FE Preparation	1
TOTAL Additional credits					**74**

B-ME

Attachment B-ME

TRANSFER ADVISING SHEET

School of Engineering & Applied Sciences

Mechanical Engineering BS

NOVA Associate of Science Degree **ANNANDALE Campus**

Engineering Catalog Year 2010-11 NOVA Code: 8310

Purpose: The curriculum is designed to permit the student to transfer into a baccalaureate degree program in Mechanical Engineering. **The Mechanical Engineering program at UDC is accredited by the Engineering Accreditation Commission of ABET, Inc**.

	NOVA Courses	**Credits**	**UDC Requirements**		**Credits**
CHM 111	College Chemistry I	4	1507-111/113	General Chemistry I Lec/Lab	4
[1]CST	Elective	3	N/A		
[2]EGR	Elective (Chose MTH 291 & MTH 292)	2-3	1535-254	Differential Equation	3
EGR 120	Introduction to Engineering	2	3528-231	Introduction to Engineering	1
EGR 126	Computer Programming for Engineers	3	3529-135	Scientific Programming	3
EGR 240	Solid Mechanics (Statics)	3	3509-201	Engineering Mechanics I	3
EGR 245	Engineering Mechanics - Dynamics	3	3509-202	Engineering Mechanics II	3
[3]EGR 246	Mechanics of Materials	3	3509-206	Mechanics of Materials (Lec)	3
ENG 111	College Composition I	3	1133-111	English Composition I	3
[4]ENG 112	College Composition II	3	1133-112	English Composition II	3
[5]___	Fine Arts Elective	3	Fine Art elective [a]		3
[5]___	Humanities	3	1133-211	Literature and Advanced Writing I	3
MTH 173	Calculus with Analytic Geometry I	5	1535-151/155	Calculus I (Lec/Lab)	4
MTH 174	Calculus with Analytic Geometry II	5	1535-253/255	Calculus II (Lec/Lab)	4
MTH 277	Vector Calculus	4	1535-135	Calculus III	3
[6]PED 116	Lifetime Fitness & Wellness	1	N/A		
[6]PED/RPK	Elective	1	N/A		
PHY 231	General University Physics I	5	1539-201/205	University Physics I (Lec/Lab)	4
PHY 232	General University Physics II	5	1539-202/206	University Physics II (Lec/Lab)	4
[7]___	Social Science Elective	3	Suggested social Science Electives [b]		3
[7]___	Social Science Elective	3	Suggested social Science Electives [b]		3
[8]SDV	Elective	1	N/A		
TOTAL NOVA credits		**68-69**	**Total equivalent UDC credits**		**57**

[a] Art**:** Art History, Art Appreciation, Music Appreciation, History of Afro American Music, Jazz History.

[b] Social Science Electives: Economics, History, Geography, Political Science, Psychology, Social Welfare, Sociology, Anthropology, Urban Studies.

[1] The CST elective may be selected from the following: CST 100, 110, 115, 126, 227 and CST 229.

[2] CSC 201 should be substituted for EGR 126 for transfer to University of the District of Columbia.

[3] EGR 265 may be substituted for EGR 240.

[4] ENG 125 may be substituted with the advice of a counselor or faculty advisor according to requirements of transfer institutions.

[5] The humanities/fine arts elective may be selected from the humanities/fine arts courses listed under General Education Electives. Elective should be selected with advice of a counselor or faculty advisor to meet requirements of transfer institution.

[6] The PED requirement may be met by one of the following options: PED 116, 2 cr.; PED 116, 1 cr. plus a PED activities course, 1 cr.; or PED 116, 1 cr. plus any RPK activities course. PED 116 is offered as both a 1-credit and a 2-credit course.

[7] The social science elective may be selected from the social /behavioral sciences listed under General Education Electives.

[8] Students can take SDV 100 College Success Skills or the SDV 101 Orientation section related to their particular program.

Additional UDC Courses for BS Mechanical Engineering					
	Philosophy Elective	3	3511-222	Analysis & Synthesis of Mechanisms	3
1133-212	Literature and Adv Writing II	3	3511-351	Heat Transfer	3
3511-205	Materials Science	3	3511-361	Machine Design	3
3511-105	Computer Aided Graphics	3	3511-371	Design of Control System Lec	3
3511-208	Thermodynamics	3	3511-373	Design of Control System Lab	1
3531-221	Electric Circuit I Lec	3	3511-406	Engineering Economics	3
3531-223	Electric Circuit I Lab	1	3511-xxx	ME Technical Elective I	3
1535-381	Probability & Statistics	3	3511-xxx	ME Technical Elective II	3
3509-308	Numerical Analysis For Engineers	3	3511-491	Senior Design Project I	3
3511-321	Fluid Mechanics Lec	3	3511-492	Senior Design Project II	3
3511-322	Thermo/Fluid Lab	1	3511-463	Mech. Engr. Senior Lab	1
3511-222	Engineering Measurement Lec	3	3511-462	Design of Energy Systems	3
3511-223	Engineering Measurement Lab	1	3509-464	Eng. Ethics & Professional Practice	1
3511-381	Microcontroller in ME	3	3509--481	FE Preparation	1
3509-207	Mechanics of Materials Lab	1			
TOTAL Additional credits					**71**

Attachment B-EE

B-EE

TRANSFER ADVISING SHEET

School of Engineering & Applied Sciences

Electrical Engineering BS

NOVA Associate of Science Degree
Engineering with Electrical Engineering Specialization

ANNANDALE Campus

Catalog Year 2010-11 NOVA Code: 8311

Purpose: The curriculum is designed to permit the student to transfer into a baccalaureate degree program in Electrical Engineering. **The Electrical Engineering program at UDC is accredited by the Engineering Accreditation Commission of ABET, Inc**.

	Courses	Credits	UDC Requirements		Credits
CHM 111	College Chemistry I	4	1507-111/113	General Chemistry I Lec/Lab	4
[1]CST	Elective	3	N/A		
EGR 120	Introduction to Engineering	2	3531-105	Intro to EE and CompE	2
[2]EGR 126	Computer Programming for Engineers	3	3528-231	Computer Science I	3
[3]EGR 240	Solid Mechanics (Statics)	3	3509-201	Engineering Mechanics I	3
EGR 251	Basic Electric Circuits I	3	3531-221	Electrical Circuits I Lec	3
EGR 252	Basic Electric Circuits II	3	3531-222	Electrical Circuits II Lec	3
EGR 255	Electric Circuits Laboratory	1	3531-223	Electrical Circuits I Lab	1
ENG 111	College Composition I	3	1133-111	English Composition I	3
[4]ENG 112	College Composition II	3	1133-112	English Composition I	3
[5]___	Fine Arts Elective	3	Fine Art Elective[a]		3
[5]___	Humanities	3	1133-211	Lit. and Advanced Writing I	3
MTH 173	Calculus/Analytic Geometry I	5	1535-151/155	Calculus I (Lec/Lab)	4
MTH 174	Calculus/Analytic Geometry II	5	1535-253/255	Calculus II (Lec/Lab)	4
MTH 277	Vector Calculus	4	N/A		
[6]PED 116	Lifetime Fitness & Wellness	1	N/A		
[6]PED/RPK	Elective	1	N/A		
PHY 231	General University Physics I	5	1539-201/205	Univ. Physics I (Lec/Lab)	4
PHY 232	General University Physics II	5	1539-202/206	Univ. Physics II (Lec/Lab)	4
[7]___	Social Science Elective	3	Social Science Electives[b]		3
[7]___	Social Science Elective	3	Social Science Electives[b]		3
[8]SDV	Elective	1	N/A		
TOTAL NOVA credits		**67**	**Total equivalent UDC credits**		**53**

a Fine Arts**:** Art History, Art Appreciation, Music Appreciation, History of Afro American Music, Jazz History.
b Social Science Electives: History, Geography, Political Science, Psychology, Social Welfare, Sociology, Economics, Anthropology, Urban Studies.
[1] The CST elective may be selected from the following: CST 100, 110, 115, 126, 227 and CST 229.
[2] CSC 201 should be substituted for EGR 126 for transfer to University of the District of Columbia.
[3] EGR 265 may be substituted for EGR 240.
[4] ENG 125 may be substituted with the advice of a counselor or faculty advisor according to requirements of transfer institutions.
[5] The humanities/fine arts elective may be selected from the humanities/fine arts courses listed under General Education Electives. Elective should be selected with advice of a counselor or faculty advisor to meet requirements of transfer institution.
[6] The PED requirement may be met by one of the following options: PED 116, 2 cr.; PED 116, 1 cr. plus a PED activities course, 1 cr.; or PED 116, 1 cr. plus any RPK activities course. PED 116 is offered as both a 1-credit and a 2-credit course.
[7] The social science elective may be selected from the social /behavioral sciences listed under General Education Electives.
[8] Students can take SDV 100 College Success Skills or the SDV 101 Orientation section related to their particular program.

Additional UDC Courses for BS Electrical Engineering					
1167-105	Introduction to Logic	3	3531-312	Comp. Organization II Lec	3
1133-212	Literature and Adv Writing II	3	3531-314	Comp. Organization II Lab	1
3528-233	Computer Science I Lab	1	3531-352	Electronics II	3
1539-203	University Physics III Lec	3	3531-354	Electronics II Lab	1
1539-207	University Physics III Lab	1	3531-362	Electromagnetic Theory II	3
3531-224	Electrical Circuits II Lab	1	3531-371	Signals and Systems I	3
1535-260	Differential Equa. & Linear Algebra	4	3531-467	Intro. to Com. Systems Lec	3
3531-301	Engineering Mathematics	3	3531-476	Intro. to Com. Systems Lab	1
3531-307	Prob. and Stat. for Engineers	3	3531-470	Control Sys. & Appl. Lec	3
3531-351	Electronics I	3	3531-477	Control Sys. & Appl. Lab	1
3531-353	Electronics I Lab	1	3531-495	Senior Project I	2
3531-356	Physical Electronics	3	3531-496	Senior Project II	2
3531-361	Electromagnetic Theory	3		Electrical Engineering Electives*	6
3531-311	Comp. Organization I Lec	3		Electrical Engineering Elective*	7
3531-313	Comp. Organization I Lab	1			
TOTAL Additional credits					**75**

Additional UDC Courses for BS Electrical Engineering (option: Computer Engineering)					
1167-105	Introduction to Logic	3	3531-312	Comp. Organization II Lec	3
1133-212	Literature and Adv Writing II	3	3531-314	Comp. Organization II Lab	1
3528-233	Computer Science I Lab	1	3531-352	Electronics II	3
3528-232	Computer Science II Lec	3	3531-354	Electronics II Lab	1
3528-234	Computer Science II Lab	1	3531-371	Signals and Systems I	3
3529-251	Assemblers & Systems Lec	3	3531-467	Intro. to Com. Systems Lec	3
3529-253	Assemblers & Systems	1	3531-476	Intro. to Com. Systems Lab	1
3531-224	Electrical Circuits II Lab	1	3531-480	Intro to Digital system Design Lec	2
1535-213	Discrete Math	3	3531-483	Intro to Digital System Design Lab	1
1535-260	Differential Equa. & Linear Algebra	4	3531-459	Digital Computer Architecture	3
3531-301	Engineering Mathematics	3	3531-478	Intro to Digital Integrated Circuits Lec	3
3531-307	Prob. and Stat. for Engineers	3	3531-479	Intro to Digital Integrated Circuits Lab	1
3531-351	Electronics I	3	3531-495	Senior Project I	2
3531-353	Electronics I Lab	1	3531-496	Senior Project II	2
3531-361	Electromagnetic Theory	3		Electrical Engineering Electives*	3
3531-311	Comp. Organization I Lec	3		Computer Science Elective**	3
3531-313	Comp. Organization I Lab	1			
TOTAL Additional credits					**75**

* Electrical Engineering Electives (most current): 3531-458, 3531 469/473, 3531-470/477, 3531 471, 3531-471, 3531-474, 3531-461/462, 3511-473 (MEMS), 3511-478 (MECHATRONICS), or equivalent.
** Computer Science Electives: 3529-412 Operating Systems, 3531-490 Digital Image Processing, Networking, and other approved by advisor

B-CS

TRANSFER ADVISING SHEET

School of Engineering & Applied Sciences

Computer Science BS

NOVA Associate of Science Degree **AL, AN, LO, MA, WO Campus**

Computer Science Catalog Year 2010-11 NOVA Code: 2460

The Computer Science program at UDC is accredited by Computing Accreditation Commission of ABET, Inc.

	NOVA Courses	**Credits**	**UDC Requirements**		**Credits**
CSC 130	Scientific Programming	3	3528-110	Intro to Programming Lec	2
*CSC 185	Programming Tools	1	3528-111	Intro to Programming Lab	1
CSC 201	Computer Science I	4	3528-231&233	Computer Science I (Lec/Lab)	4
CSC 202	Computer Science II	4	3528-232&234	Computer Science II (Lec/Lab)	4
CSC 205	Computer Organization	3	3529-311&313	Computer Organization (Lec/Lab)	4
CST 110	Intro to Communication	3	1119-115	Public Speaking 1119-115	3
ENG 111	College Composition I	3	1133-111	English Composition I	3
[1]ENG 112	College Composition II	3	1133-112	English Composition II	3
[2]___	Fine Arts Elective	3	[a]___	Fine Arts Elective	3
[2]___	Humanities Elective	3	1133-211	Lit and Adv Writing I	3
PHY 231	General University Physics I	5	1539-201&205	University Physics I Lec&Lab	4
PHY 232	General University Physics II	5	1539-202&206	University Physics II Lec&Lab	4
MTH 173	Calculus with Analytic Geometry I	5	1535-151&155	Calculus I (Lec/Lab)	4
[3]MTH 174	Calculus with Analytic Geometry II	5	1535-152&156	Calculus II (Lec/Lab)	4
[4]PED 116	Lifetime Fitness & Wellness	1	NA		0
[4]PED/RPK	Elective	1	NA		0
[5]___	Social Science Elective	3	[b]___	Social Science Elective	3
[5]___	Social Science Elective	3	[b]___	Social Science Elective	3
[5]___	Social Science Elective	3	NA		0
[6]SDV	Elective	1	NA		0
TOTAL NOVA credits		**62**	**Total equivalent UDC credits**		**52**

* Students who completed CSC 100 prior to fall 2009 do not need to take CSC 185.

[1] ENG 125 may be substituted with the advice of a counselor or faculty advisor according to requirements of transfer institutions.

[2] Humanities/fine arts elective may be selected from the humanities/fine arts courses listed under General Education Electives. Elective should be selected with advice of a counselor or faculty advisor to meet requirements of transfer institution.

[3] The following courses are not required to complete the A.S. degree; however, a baccalaureate degree in Computer Science requires more mathematics courses than are listed in this program. Depending upon the requirements of the transfer institution, students may enhance their preparation for transfer by taking MTH 286 Discrete Mathematics, MTH 241 Probability and Statistics I, and/or MTH 285 Linear Algebra.

[4] The PED requirement may be met by one of the following options: PED 116, 2 cr.; PED 116, 1 cr. plus a PED activities course; or PED 116, 1 cr. plus any RPK activities course. PED 116 is offered as both a 1-credit and a 2-credit course.

[5] The social science elective may be selected from the social/behavioral sciences courses listed under General Education Electives. All electives should be selected in conjunction with an advisor and after examining the requirements at the transfer institution.

[6] Students can take SDV 100 College Success Skills or the SDV 101 Orientation section related to their particular program.

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[a] (Fine Arts Elective 3-cr hours): Courses from Music, Drama, Art, and Dance
[b] (Social Science Elective 6-cr hours): "Courses numbered 100 and above from Psychology, Sociology, Economics, History, Social Work, Geography, Political Science, and Urban Studies."
[c] (Natural Science Elective 8-cr hours): Courses numbered 100 and above from Physics, Chemistry, and Biology.
[d] (Philosophy Elective 3-cr hours): Courses from Philosophy (Logic)

Additional UDC Courses for BS Computer Science					
[c] ____	Natural Science Elective with Lab	4	3529-410	Theory of Computing	3
1535-213	Discrete Math	3	3529-412	Operating Systems	3
1535-225	Linear Algebra	3	3529-251&253	Assemblers and Systems Lec&Lab	4
3529-115	Computing Foundations	3	3529-415	Computer Architecture	3
[d] ____	Philosophy Elective	3	3529-434	Analysis of Algorithm	3
1535-253&255	Calculus III	4	3529-315	UNIX Systems Programming	3
1535-381	Probability & Statistics	3	3529-495	Senior Seminar	1
3529-241	Data Structure	3	3529-499	Senior Project	2
1133-212	Lit. & Adv. Writing II	3	3529-452	Database Systems Design	3
3528-285	Professional Ethics	3	3529-414	Introduction to AI	3
3529-351	Computer Networks	3	CSIT Elective		3
3529-325	Org. of Prog. Languages	3	CSIT Elective		3
3529-341	Software Engineering	3	CSIT Elective		3
TOTAL Additional credits					**78**

B-IT

Attachment B-IT

TRANSFER ADVISING SHEET

School of Engineering & Applied Sciences

Information Technology BS

NOVA Associate of Science Degree | **AL, AN, LO, MA, WO Campus**

Information Technology | Catalog Year 2010-11 | NOVA Code: 3400

	NOVA Courses	Credits	UDC Requirements		Credits
CST 110	Introduction to Communication	3	1119-115	Public Speaking	3
ENG 111	College Composition I	3	1133-111	English Composition I	3
[1]ENG 112	College Composition II	3	1133-112	English Composition II	3
[2]HIS	Elective	3	NA		0
[3]___	Fine Arts Elective	3	[a]___	Fine Arts Elective	3
[3]___	Humanities Elective	3	1133-211	Lit and Adv Writing I	3
ITD 256	Advanced Database Management	3	3529-452	Database Systems Design	3
ITE 115	Intro to Computer Applications and Concepts	3	3528-104&105	Intro to Computer Applications	3
ITE 170	Multimedia Software	3	CSIT Elective		3
ITE 221	PC Hardware and OS Architecture	3	3529-415	Computer Architecture	3
ITN 100	Introduction to Telecommunications	3	NA		0
ITP 100	Software Design	3	3528-110&111	Intro to Programming Lec/Lab	3
[4]ITP 120	JAVA Programming I or ITP 132 C++ Programming I	4	3528-231&233	Computer Science I Lec/Lab	4
MTH 163	Pre-calculus I or higher-level math	3	NA		0
[5]MTH 271	Applied Calculus I	3	1535-215	Calculus for Bus and Economics	4
[6]___	Natural Science/Lab Elective	4	[b]___	Natural Science Lec/Lab	4
[6]___	Natural Science/Lab Elective	4	[b]___	Natural Science Lec/Lab	4
[7]PED 116	Lifetime Fitness & Wellness	1	NA		0
[7]PED/RPK	Elective	1	NA		0
[8]___	Social Science Elective	3	[c]___	Social Science Elective	3
[8]___	Social Science Elective	3	[c]___	Social Science Elective	3
[9]SDV	Elective	1	NA		0
TOTAL NOVA credits		**63**	**Total equivalent UDC credits**		**52**

[1] ENG 125 may be substituted with the advice of a counselor or faculty advisor according to requirements of transfer institution.

[2] Select from HIS 101, 102, 121, or 122. Other HIS courses may be taken after consultation with a faculty advisor.

[3] The humanities/fine arts elective may be selected from the humanities/fine arts courses listed under General Education Electives. Electives should be selected with advice of a counselor or faculty advisor to meet requirements of transfer institution.

[4] Students planning to transfer to GMU should take ITP 120.

[5] Students starting with a high placement test score may wish to take MTH 173 rather than MTH 271.

[6] The science elective may be selected from biology, chemistry, physics, geology, or the natural science 100 series courses with a lab component, excluding NAS 161-162, listed under General Education Electives. Some four-year colleges require a two-semester sequence.

[7] The PED requirement may be met by one of the following options: PED 116, 2 cr.; PED 116, 1 cr. plus a PED activities course, 1 cr.; or PED 116, 1 cr. plus RPK activities course. PED 116 is offered as both a 1-credit and a 2-credit course.

[8] The social science elective may be selected from the social/behavioral sciences courses listed under General Education Electives. Students planning to transfer to GMU should take HIS 101, 102, 111, 112, 121, or 122 and, PSY, or SOC.

[9] Students can take SDV 100 College Success Skills or the SDV 101 Orientation section related to their particular program.

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[a] (Fine Arts Elective 3-cr hours): Courses from Music, Drama, Art, and Dance
[b] (Natural Science Elective 8-cr hours): Courses numbered 100 and above from Physics, Chemistry, and Biology.
[c] (Social Science Elective 6-cr hours): "Courses numbered 100 and above from Psychology, Sociology, Economics, History, Social Work, Geography, Political Science, and Urban Studies."
[d] (Philosophy Elective 3-cr hours): Courses from Philosophy (Logic)

Additional UDC Courses for BS Information Technology					
1535-116	Finite Mathematics	3	3529-410	Theory of Computing	3
1535-185	Statistics	3	3529-412	Operating Systems	3
3528-231&233	Computer Science I Lec&Lab	4	3529-251&253	Assemblers and Systems Lec&Lab	4
3523-131&132	Computer Network Fundamentals	4	3529-434	Analysis of Algorithm	3
3529-115	Computing Foundations	3	3529-315	UNIX Systems Programming	3
3529-232&234	Computer Science II	4	3529-414	Introduction to AI	3
3523-231&232	Internet and Wide Area Networks	3	3529-495	Senior Seminar	1
3529-241	Data Structure	3	3529-499	Senior Project	2
3528-285	Professional Ethics	3	CSIT Elective		3
1133-212	Lit. & Adv. Writing II	3	CSIT Elective		3
3523-235&236	Web Page Dev & HTML	3	CSIT Elective		3
3529-351	Computer Networks	3			
3529-341	Software Engineering	3			
[d]___	Philosophy Elective	3			
TOTAL Additional credits					**76**